

## CLAIMS

What is claimed is:

- 1 1. A method of automated data collection and analysis, the method comprising the  
2 machine-implemented steps of:  
3 receiving a request for information about a device;  
4 constructing a command set, wherein the command set is a set of executable  
5 commands that indicate collection of data from the device and zero or more  
6 other devices;  
7 sending the command set to the device;  
8 receiving analysis results from an analysis engine, wherein the analysis results are  
9 based at least in part on a set of results received from the device and produced  
10 by executing the command set; and  
11 determining a set of solutions based on the analysis results.
- 1 2. The method of Claim 1, wherein the command set comprises one or more commands  
2 to collect data from two or more devices simultaneously.
- 1 3. The method of Claim 1, wherein the command set comprises a first command to  
2 collect data from the device at a first time, and a second command to collect data from the  
3 device at a second time, wherein the first time is different from the second time.
- 1 4. The method of Claim 1, further comprising the step of producing the analysis results  
2 based on a result set, where the result set is based at least in part on the execution of the  
3 command set.
- 1 5. The method of Claim 4, further comprising the step of removing confidential  
2 information from the result set.

1 6. The method of Claim 1, further comprising the step of providing the set of solutions  
2 to a user.

1 7. The method of Claim 1, wherein the step of constructing the command set comprises  
2 choosing one or more commands from a list of predefined commands.

1 8. The method of Claim 7, wherein the step of choosing one or more commands from  
2 the list of predefined commands comprises choosing one or more commands based at least in  
3 part on the request for information about the device.

1 9. The method of Claim 1, wherein the step of constructing the command set comprises  
2 defining new commands based on the request for information about the device.

1 10. A method for automated data collection from a network device and analysis of the  
2 data, the method comprising the machine-implemented steps of:  
3 receiving a request for information about the network device;  
4 constructing a command set, wherein the command set is a set of executable  
5 commands that indicate collection of data from the network device and zero or  
6 more other network devices;  
7 sending the command set for execution at the network device;  
8 receiving analysis results from an analysis engine, wherein the analysis results are  
9 based at least in part on a set of results received from the network device and  
10 produced by executing the command set; and  
11 determining a set of solutions based on the analysis results.

1 11. A machine-readable medium carrying one or more sequences of instructions for  
2 automated data collection and analysis, which instructions, when executed by one or more  
3 processors, cause the one or more processors to carry out the steps of:  
4 receiving a request for information about a device;

5 constructing a command set, wherein the command set is a set of executable  
6 commands that indicate collection of data from the device and zero or more  
7 other devices;  
8 sending the command set for execution at the device;  
9 receiving analysis results from an analysis engine, wherein the analysis results are  
10 based at least in part on a set of results received from the device and produced  
11 by executing the command set; and  
12 determining a set of solutions based on the analysis results.

1 12. An apparatus for automated data collection and analysis, comprising:  
2 means for receiving a request for information about a device;  
3 means for constructing a command set, wherein the command set is a set of  
4 executable commands that indicate collection of data from the device and zero  
5 or more other devices;  
6 means for sending the command set for execution at the device;  
7 means for receiving analysis results from an analysis engine, wherein the analysis  
8 results are based at least in part on a set of results received from the device  
9 and produced by executing the command set; and  
10 means for determining a set of solutions based on the analysis results.

1 13. An apparatus for automated data collection and analysis, comprising:  
2 a network interface that is coupled to a data network for receiving one or more packet  
3 flows therefrom;  
4 a processor;  
5 one or more stored sequences of instructions which, when executed by the processor,  
6 cause the processor to carry out the steps of:  
7 receiving a request for information about a device;  
8 constructing a command set, wherein the command set is a set of executable  
9 commands that indicate collection of data from the device and zero or  
10 more other devices;  
11 sending the command set for execution at the device;

12                   receiving analysis results from an analysis engine, wherein the analysis results  
13                   are based at least in part on a set of results received from the device  
14                   and produced by executing the command set; and  
15                   determining a set of solutions based on the analysis results.

1    14.    A method of automated data collection and analysis, the method comprising the  
2    machine-implemented steps of:  
3            sending a request for information about a device;  
4            receiving a command set in response to the request, wherein the command set is a set  
5            of executable commands that indicate collection of data from the device and  
6            zero or more other devices;  
7            executing the command set;  
8            generating a result set based on the execution of the command set;  
9            sending the result set to an analysis engine as part of a second request for analysis of  
10           the result set; and  
11           receiving a solution to one or more problems discovered at least in part by the  
12           analysis engine

1    15.    The method of Claim 14, wherein the steps are performed by a command runner  
2    module running on a user machine, and wherein the method further comprises the step of  
3    determining whether the user machine has the latest version of the command runner module.

1    16.    The method of Claim 15, further comprising the step of:  
2            if the user machine does not have a version of the command runner module,  
3            downloading the command runner module.

1    17.    The method of Claim 15, further comprising the step of:  
2            if the user machine does not have the latest version of the command runner module,  
3            downloading a patch to the command runner module.

1 18. The method of Claim 14, further comprising the step of removing confidential  
2 information from the result set.

1 19. A method of automated data collection and analysis from one or more network  
2 devices, the method comprising the machine-implemented steps of:  
3 sending a request for information about a network device;  
4 receiving a command set in response to the request, wherein the command set is a set  
5 of executable commands that indicate collection of data from the network  
6 device and zero or more other network devices;  
7 executing the command set;  
8 generating a result set based on the execution of the command set;  
9 sending the result set to an analysis engine as part of a second request for analysis of  
10 the result set; and  
11 receiving a solution to one or more problems discovered at least in part by the  
12 analysis engine.